

IN THE CLAIMS

Please amend the claims as shown below. This listing of claims will replace all prior versions and listings of claims in the Application.

1. (Currently Amended) A circuit for controlling the rise time of a signal, comprising:

a voltage multiplication circuit for converting multiplier which converts an input voltage corresponding to said signal to an output voltage greater than said input voltage;

a ramp generator coupled to said voltage multiplication circuit for controlling ~~which controls~~ said output voltage from said voltage multiplication circuit, wherein a ratio between a first capacitor of said ramp generator and a second capacitor of said ramp generator determines said rise time of said signal, wherein said signal comprises a staircase ramp signal; and

a divide by N counter coupled to said ramp generator for generating a plurality of clock phases wherein said ramp generator is controlled with said clock phases.

2. (Original) The circuit of Claim 1, wherein said voltage multiplication circuit comprises a charge pump.

3. (Original) The circuit of Claim 1, wherein said signal is used to program and erase Flash EPROM cells.

4-6. (Cancelled)

7. (Previously Presented) The circuit of Claim 1 further comprising a level shifter.

8. (Original) The circuit of Claim 1 further comprising two non-overlapping clock signals.

9. (Previously Presented) The circuit of Claim 1 further comprising a ring oscillator coupled to said ramp generator.

10. (Previously Presented) The circuit of Claim 1 further comprising a capacitor divider network coupled to a switched capacitor network.

11. (Previously Presented) The circuit of Claim 10, wherein said switched capacitor network switches between ground potential and potential of a node of said capacitor divider network.

12. (Previously Presented) The circuit of Claim 11, wherein said node is coupled to a CMOS comparator.

13. (Cancelled)

14-16. (Cancelled)

17. (Currently Amended) A switched capacitor controller for controlling a rise time of an on-chip generated voltage source, comprising:

a charge pump;

a ramp generator coupled to said charge pump, wherein said ramp generator comprises a switched capacitor;

a regulator circuit coupled to said switched capacitor circuit which causes a capacitor to switch between ground potential and the potential at a node, wherein a stair-step ramp signal is generated and said rise time is controlled with said switched capacitor, wherein said switched capacitor controller performs a function related to programming a cell of said flash memory device, and wherein said switched capacitor comprises two capacitors wherein said rise time is controlled according to a ratio of capacitances of said two capacitors; and

~~The switched capacitor controller of Claim 14 further comprising an oscillator coupled to said charge pump which generates an oscillating signal to said charge pump.~~

18. (Original) The switched capacitor controller of Claim 17 further comprising:
a divider coupled to said oscillator;
a non-overlapping two phase clock generator coupled to said divider.

19. (Currently Amended) The switched capacitor controller of Claim 17 ~~[[14]]~~, wherein said ramp generator further comprises a capacitor divider network.

20. (Currently Amended) In a flash memory, a method for controlling a rise time of an on-chip generated voltage source used to program said flash memory, comprising:

generating a programming voltage VPP from a power supply, wherein said programming voltage is greater than a supply voltage VCC from said power supply;

activating a program control signal PGM-ENVPP to enable programming of a cell of said flash memory;

generating a stair-case ramp based on said programming voltage VPP in response to said program control signal PGM-ENVPP, wherein steps of said stair-case ramp have a period corresponding to a clock signal generated by a clock generator and voltage increases corresponding to a reference voltage times a ratio of two capacitor values.

21. (Previously Presented) The method of Claim 20 further comprising switching a capacitor between ground potential and the potential at a node to generate said stair-case ramp.